

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY
OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:-**

/WHAT I CLAIM AS MY INVENTION:-

1. A biomechanically correct pedal powered paddling system for small watercrafts
 5 comprising:
 - a. a watercraft attaching frame having:
 - i. a central width-adjustable joining portion,
 - ii. two opposing watercraft-clamping members for attaching said
 frame to watercraft gunwale,
 - 10 iii. two opposing pedal-assembly receiving portions,
 - iv. two opposing primary linkage pivoting members,
 - v. frame extension extending perpendicularly from each end portion
 of said frame, and
 - vi. two opposing secondary linkage pivoting members,
 - 15 b. a pedal drive assembly having;
 - i. a primary pedal drive shaft having extension receiving female
 members at each end,
 - ii. two drive shaft extensions having non-rotatable male ends
 longitudinally adjustably mating with female drive shaft members
 and paddle drive members distal from the primary drive shaft, and
 - 20 iii. two foot pedals rotably attached to offset member integral with
 pedal drive shaft forming crank member,

- c. an upper and lower paddle-attaching portion each having:
 - i. a paddle receiving portion,
 - ii. a linkage attaching portion having single axis rotational freedom from paddle receiving portion, and
 - 5 iii. releasable paddle locking member,
- d. a linkage array having:
 - i. a paddle crank having a non-rotational female end adapted to receive the male end of the drive shaft extensions, and a rotational end adapted to secure to the linkage attaching portion of the above
 - 10 paddle receiving portion,
 - ii. a swing lever,
 - iii. a diagonal support member,
 - iv. a vertical member, and
 - v. a plurality of pivotal axle members

15 2. The biomechanically correct pedal powered paddling system of claim 1 wherein the drive portion comprises a drive extension at each end thereof having a longitudinally slidable non-rotational joint therebetween.

3. The biomechanically correct pedal powered paddling system of claim 1 wherein the

20 paddle crank arm is rotably driven by force generated by rotational motion of the pedal drive assembly.

4. The biomechanically correct pedal powered paddling system of claim 1 wherein upper and lower paddle clamps are adapted with a quick-release apparatus for easy removal of said paddles.

- 5 5. The biomechanically correct pedal powered paddling system of claims 1 through 4 wherein use thereof is for propelling a small watercraft using ones leg power or other forms of manual or mechanical force, while synthesizing the biomechanical motion of conventional arm powered paddling.

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